## (19) World Intellectual Property Organization

International Bureau



## 

(43) International Publication Date 10 February 2005 (10.02.2005)

**PCT** 

(10) International Publication Number WO 2005/012034 A1

(51) International Patent Classification7:

B60N 2/48

(21) International Application Number:

PC17US2004/025720

(22) International Filing Date: 28 July 2004 (28.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 60/490,499 28 July 2003 (28.07.2003) US

- (74) Agents: SIMONELLI, David, J. et al.: Clark Hill PLC, Suite 3500, 500 Woodward Avenue, Detroit. MI 48226-3435 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FL, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW. GH, GM. KE, LS, MW. MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM). European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, TT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BL, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

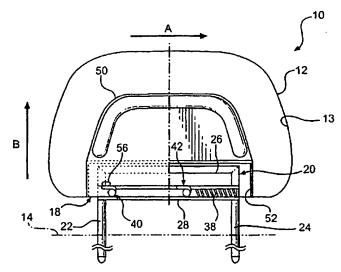
[Continued on next page]

(71) Applicant (for all designated States except US): INTTER AUTOMOTIVE INC. [CΛ/CΛ]; 521 Newpark Blvd.. Newmarket. Ontario L3Y 4X7 (CA).

(72) Inventor; and

(75) Inventor/Applicant (for US only): NEALE, Colin, Geoffrey [US/US]; 39473 Village Run Drive, Northville, MI 48167 (US).

(54) Title: TILTING HEAD RESTRAINT WITH A USE POSITION AND A STOWED POSITION



(57) Abstract: A head and restraint assembly for a motor vehicle seat having a seat back includes a support member (20) that is removably securable to the seat back. Abody portion (12) including a foam cushion is disposed adjacent the support member. A pivot tube (28) is fixedly secured to the support member. The pivot tube defines a stot cut (40, 42) through the pivot tube. A spring (38) is fixedly secured to the pivot tube and extends through a portion of the pivot tube. The head restraint assembly also includes a pivot rod (54) that is disposed within the pivot tube. The pivot rod includes a guide pin (56, 58) that extends out of the pivot rod and is received by the slot. The pivot rod is fixedly secured to the body portion such that rotation of the pivot rod with respect to the pivot tube pivots the body portion with respect to the support member to move the body portion between a use position and a titled position.

2005/012034 A1

## 

## Published:

- with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.